INTRODUCTION

CHAPTER I

THE LIFE-HISTORY AND ANATOMY OF BUTTERFLIES

" The study of butterflies,—creatures selected as the types of airiness and frivolity,—instead of being despised, will some day be valued as one of the most important branches of biological science."—BATES, *Naturalist on the Amazons*.

IN studying any subject, it is always well, if possible, to commence at the beginning; and in studying the life of animals, or of a group of animals, we should endeavor to obtain a clear idea at the outset of the manner in which they are developed. It is a familiar saying that "all life is from an egg/* This statement is scientifically true in wide fields which come under the eye of the naturalist, and butterflies are no exception to the rule.

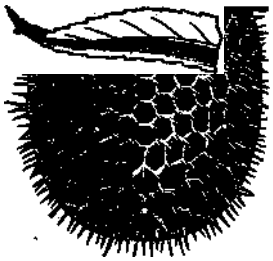

FIG. 2. -Egg of *Basilarchia*

THE EGGS OF BUTTERFLIES

The eggs of butterflies consist of a membranous shell containing a fluid mass composed of the germ of the future caterpillar and the liquid food which is necessary for its maintenance and development until it escapes from the shell. The forms of these eggs are various. Some are spherical, others hemispherical, conical, and cylindrical. Some are barrel-shaped; others have the shape Of *chrysalidis*, natural size, *disippus*, magnified 30 diameters under surface of leaf (Ritey).

others have the form of a turban. Many of them are angled, some depressed at the ends. Their surface is variously ornamented. Some-